

We claim:

1. A method of transmitting data with real-time requirement and data without real-time requirement, which comprises:

providing a plurality of first quality of service classes in an application layer for transmitting first data with real-time requirement and a plurality of second quality of service classes in the application layer for transmitting second data without real-time requirement;

selecting a combined quality of service class formed from the first quality of service classes and the second quality of service classes in the application layer, each combined quality of service class being allocated transmission parameters specifying a transmission of the first data and the second data; and

supplying the first data and the second data and the transmission parameters of the selected combined quality of service class to a unit of a transport layer, and transmitting the first data and the second data with the unit taking into consideration the transmission parameters.

2. The method according to claim 1, wherein the first data with real-time requirement contain voice data.

3. The method according to claim 1, wherein the second data contain data selected from the group consisting of text data, video data, and image data.

4. The method according to claim 1, which comprises allocating to each of the first quality of service classes a first priority and to each of the second quality of service classes a second priority, and specifying, based on the first and second priorities, a priority with which the first data and the second data, respectively, are to be transmitted.

5. The method according to claim 4, which comprises forming the combined quality of service classes in dependence on the first and second priorities.

6. The method according to claim 1, which comprises selecting the combined quality of service class with the following steps:

a) selecting a combined quality of service class having the first quality of service class with a highest first priority and the second quality of service class with a highest second priority;

b) checking whether a coder to be used can transmit the first data and the second data according to the transmission

parameters of the respective combined quality of service class;

c) if the checking step results in an affirmative answer, selecting the combined quality of service class;

d) if the checking step does not result in an affirmative answer, selecting a further combined quality of service class such that in each case the combined quality of service class with reduced second priority is selected; and

e) iteratively performing steps b) and d) until the coder can transmit the first data and the second data in accordance with transmission parameters of the respective combined quality of service class.

7. The method according to claim 1, which comprises coding and transmitting the first data and the second data as a data stream with a predeterminable transport layer quality of service class in the unit of the transport layer.

8. A communication device for transmitting first data with real-time requirement and second data without real-time requirement, wherein a plurality of first quality of service classes are provided in an application layer for transmitting the first data and a plurality of second quality of service

classes are provided in the application layer for transmitting the second data, the device comprising:

a processor programmed to select a combined quality of service class formed from the first quality of service classes and the second quality of service classes in the application layer, each combined quality of service class being allocated transmission parameters specifying a transmission of the first data and the second data; and

a transmission unit of a transport layer receiving from said processor the first data and the second data and the transmission parameters of the selected combined quality of service class, and transmitting the first data and the second data taking into consideration the transmission parameters.

9. The communication device according to claim 8 configured as a mobile communication device.

10. A communications system, comprising said communication device according to claim 8 configured as a first, mobile communication device, and a second communication device, wherein the first data and the second data can be transmitted from said first communication device to said second communication device.